UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT NEW YORK

THOMAS SHINE, Plaintiff, - against - DAVID M. CHILDS and SKIDMORE, OWINGS & MERRILL LLP, Defendants.	04 CV 8828 (MBM) (RLE) **AFFIDAVIT OF RICHARD MEIER**

I, RICHARD MEIER, being duly sworn, deposes and says:

1. I am a licensed architect and Partner in Richard Meier & Partners Architects LLP. I have practiced as an architect for more than 40 years. During this time, I have designed and built more than 100 projects throughout the United States and abroad. I am a Fellow of the American Institute of Architects, the Royal Institute of British Architects, and the American Academy of Arts and Sciences. I am a recipient of the Pritzker Prize for Architecture, widely considered the equivalent of the Nobel Prize of Architecture, as well as the Praemium Imperiale from the government of Japan, and the RIBA Gold Medal and the AIA Gold Medal.

2. My most notable work includes The Getty Center in Los Angeles, California; the Museum of Contemporary Art in Barcelona, Spain; the Jubilee Church in Rome, Italy; Federal Courthouse Buildings in Islip, Long Island and Phoenix Arizona; and the Museum of Applied Arts in Frankfurt, Germany. My firm employs a staff of 85 architects, designers and administrative personnel; we have produced architectural contract documents for work in 13 countries in five different languages.

3. The American Institute of Architects has recognized my firm's work with 70 awards. I have taught at many architectural schools including the Cooper Union, Harvard University, Pratt University, Princeton University, U.C.L.A. and Yale University. I currently hold the Frank T. Rhodes Class of 1956 University Professorship at Cornell University. A detailed biography is annexed hereto as Exhibit A.

4. I submit this Affidavit in support of the motion of David M. Childs and Skidmore, Owings & Merrill, LLP (collectively "SOM"), to dismiss and/or for summary judgment.

5. This Affidavit has been prepared with the assistance of Professor Kenneth Frampton, an internationally well-respected architectural scholar, writer and educator, who is currently the Ware Professor of Architecture and Director of the Ph.D program in Architecture at Columbia University; his biography is annexed hereto as Exhibit B.

6. I have been asked to provide an assessment of the materials, which I have been told to assume were created by plaintiff Thomas Shine during his enrollment in the Masters of Architecture program at Yale School of Architecture, for a skyscraper studio project taught by Professor Cesar Pelli. Specifically I have been asked to address the following:

a. the phases of contemporary architectural practice and implications that these have for architectural education, with comments on the evolution and form of high-rise construction;

b. an evaluation of the Plaintiff's materials (Shine '99 and the Olympic Tower), and an identification of historical precedents;

c. an evaluation of the SOM Freedom Tower design, an identification of historical precedents; and

d. a comparison between the materials underlying Plaintiff's claim of copyright protection and SOM's Freedom Tower design.

7. In my review I have relied upon the following materials:

a. the Complaint referenced above (Thomas Shine v. David M. Childs and Skidmore, Owings & Merrill, LLP);

b. plans, drawings, renderings and photos of the Freedom Tower design, that were presented at the December 19, 2003 press conference;

c. photos taken of the models that Plaintiff made available to defendant's counsel on Feb. 16, 2005;

d. the AIA Architects Handbook of Professional Practice Vol. 2 (1994); and

e. a seminal work by Karel Voller (1991) called Twist & Build, 2001, published by 010 Publishers, Rotterdam.

The Phases of Architectural Design

8. In this regard it is helpful to point out the four typical phases of development through which a work of architecture must pass, from the time of receiving the commission to the commencement of construction on site:

a. Conceptual Design: A number of different concepts or ideas for the project are explored.

b. Schematic Design: This phase establishes the general scope, scale and relationships among the components of the project. Typical documentation includes a site plan, floor plans, elevations, sections, specifications, cost estimates, renderings, and models.

c. Design Development: During this phase the design achieves refinement and coordination including more defined drawings and specifications worked out at a scale that minimizes the possibility of major modifications during the Construction Documents phase. The design team works out a clear, coordinated description of all aspects of the design including fully developed floor plans, sections, elevations, reflected as well as detailed ceiling plans, sections and larger scale typical exterior and interior details. Basic mechanical, electrical, plumbing, fire protection, security and other systems are defined.

d. Construction Documents: These are the written and graphic documentation for the design and administration of the project. This documentation includes drawings, specifications, and contract forms and conditions.

A copy of pages excerpted from the American Institute of Architects (AIA) Handbook of Architectural Practice, referencing the development process of an architectural design, is annexed hereto as Exhibit C.

The Evolution and Generic Form of High Rise Construction

9. Given the subject matter of this case, it is pertinent to remark on the cultural status of high-rise construction, and on the normative standards that apply to skyscraper design as it has evolved over the last century. Emerging as a viable building form in the last quarter of the nineteenth century, accompanied by the invention of the steel frame, and the perfection of the elevator, the high-rise commercial building posed a problem for architects, since its multiple floors and its exceptional height had no precedent in traditional building culture. By the 1890's it was generally realized that this new building type could only be rendered culturally intelligible by dividing the overall mass of the structure into bottom, middle and top. This generally entailed a monumental treatment of the ground and first floors bracketed together, that is to say, the bottom, followed by the multi-story shaft of the building (the middle), and thereafter, culminating in a monumental cornice or pinnacle (the top).

10. This standard treatment would become dramatically evident in the New York skyscrapers of the Art Deco period, such as the canonical Chrysler and Empire State buildings, both dating from 1930. It has become generally acknowledged that both the bottom and the top of a high-rise needs to be given a particular character, one that differentiates these features from the repetitive multi-story character of the shaft.

11. The typical floor of a high-rise structure invariably consists of open space defined by the geometry of the exterior walls, except for escape stairs, toilet facilities, mechanical service

ducts and the elevator core, all of which are standard features which reduce the amount of available space. The exceptions to this typical condition are the commercial frontage on the first and second floors (the bottom), the water tank, and elevator and mechanical service overruns at the roof level (the top).

An Evaluation of Shine '99 as a Conceptual Design and Its Relation to the Olympic Tower

12. I have reviewed photographs of different aspects of a single cardboard model, which I understand the Plaintiff has called Shine '99. The lack of information is such that this model cannot be said to constitute a coherent conceptual design for a building. Apart from the fact that not even a rudimentary plan is provided that might suggest that the model is meant to represent a building, (as opposed to a work of sculpture or some other object), and even assuming it is meant to represent a building, there is no information as to the number of floors, the floor to floor height, the overall height, the width of each side or even the mode of entering the building at ground level. No information is given as to scale; nor do we have any indication as to structure and construction. Nothing more is evident in the four photographs other than the fact that there are two partially warped sides, tapering from a rectangle at the bottom to a parallelogram at the top, and that one of the warped opposing faces is partially distorted and partially stepped through the superimposition of four setbacks. (The deployment of tiered setbacks in high-rise construction has been standard practice, following the implementation of the New York Zoning Code of 1917.) In my view a three-dimensional opaque model displaying certain sculptural or plastic attributes is not sufficient to convey an architectural concept.

13. The lack of such basic information means that the submission does not amount to a conceptual design for a building either internally or externally. Also, the assertion in the Complaint that Shine '99 is a design for a "twisting tower" cannot be sustained. Shine '99

cannot be said to constitute a "twisted tower" if the term is defined as a helical form spiraling up from the base to the top of the structure, because Shine '99 does not spiral upwards. While Shine '99 has two warped sides, the warping is caused not by a rotation of the floor plates as would be the case in a truly helical formation, but rather by a successive chamfering of the floor plates as the floors rise. (There are no actual floor plates indicated in Shine '99; for these purposes I am extrapolating floor plates from hypothetical cross sections.) Among precedents one might cite Kohn Pederson & Fox's design for the Shanghai World Financial Center dating from 1997, an image of which is annexed hereto as Exhibit D.

14. Even if the claim that Shine '99 is a "twisting tower" could be sustained, it would not be original, since so-called twisted towers have been part of the received skyscraper repertoire in architectural practice for over twenty years, as I will discuss below in connection with Plaintiff's Olympic Tower.

15. From the material annexed to the Complaint, one cannot see how the concept of the Olympic Tower can be derived from the concepts embodied in Shine '99. While they both may be square at their bases, this is where any resemblance ends. The Olympic Tower spirals around an eccentric core, whereas the floor plates of Shine '99 are not spiraled, but are successively chamfered.

An Evaluation of the Olympic Tower as a Conceptual Design

16. The six model photographs of the Olympic Tower (Complaint, Exhibit B, pages 1-6) and the three line drawings of the Olympic Tower (pages 7-9) cannot be said to embody a coherent conceptual design capable of being developed into a schematic design. There are numerous inconsistencies between the materials, and they simply do not convey any information about overall height, width of the sides, scale, floor height or mode of construction, just to name

a few obvious omissions. In fact, the line drawings are rudimentary and add little detail other than a rough indication of what seems to be an elevator core in one of the drawings. Plaintiff has not created detailed elevations or sections that would typically be produced to move a project beyond the conceptual design phase. Other discrepancies are as follows:

17. The number of diagonal columns on each side of the Olympic Tower differs between the rudimentary floor plan (page 7) and the various models. This can be readily seen by comparing the nodal points of connection between the floor slab and the so-called "symmetrical diagonal column grid", as indicated on the plans shown on page no. 7 of the Complaint. The nodal points are not the same as the ones shown on the structural models (pages 4 – 6). (A "structural node" is a structural connection or joint between the diagonal column grid and the floor slabs.) In the drawing and on the models this crucial structural connection point is shown as coinciding with the corner of the slab at the edge of the building in the plans on Page 7, whereas, in the model, it is shown as being set in from the corner. As a result, eight nodes are shown along one side of every floor in plan (page 7) and seven nodes are indicated in the structural model (pages 4-6).

18. There is no unequivocal indication as to the number of floors of the Olympic Tower. Thus, while the plans on page 7 indicate eleven floors to which the columns are connected, the structural model (pages 4-6) shows ten floors. Although the Complaint refers to there being ten intermediate floors between each primary level -- the point at which the structural diagrid is connected to the floor plate in both the model and the plans -- there is no way of determining the ultimate height of the projected high-rise because the number of floors remains indeterminate.

19. Finally, there is no consistency as to the relationship between the "textured curtain wall" as shown in the picture in Complaint, Exhibit B, Page 1, and the wall represented at a smaller scale in the photos of the models which appear in Pages 2 and 3 (Complaint, Exhibit B). Before addressing this inconsistency in detail, I should explain the difference between a structural diagrid and the cladding of a building, because there is confusing language in the Complaint on this point.

20. A structural diagrid is quite literally the part of a building's fundamental structure, just as are vertical columns in other high-rise buildings. A structural diagrid consists of diagonal columns along the perimeter of a building that cross or intersect with one another and provide support as well as deflecting stress or "load" on the building by forces such as gravity and wind. There are a finite, known, number of ways to configure the diagonal relationship of the structural members and still meet the functional requirements described above.

21. Diagrids are quite common in recent high-rise construction. Also in vogue is the concept of "expressing" a building's structural members on the exterior cladding or skin of a building, i.e. the cladding mimics certain underlying structural members in the building's surface. It should be noted that both the internal structural grid and an exterior expression of the structural grid may both be called diagrids.

22. In the case of the Olympic Tower, the glass curtain wall is shown as being set into the depth of the structural grid as shown in the picture on page 1 of Exhibit B of the Complaint. In this instance, the structural diagrid is not expressed in the cladding but rather is exposed on the outside of the cladding. In the second the glazing is shown as being set into the depth of the structural grid. By contrast, the model photographs on pages 2 and 3 of Exhibit B, to the extent

the white panels are meant to represent glass, there is no indication that the glass is similarly recessed.

23. Given the size of the proposed structure one cannot consider the aperture that has been casually punched into the base of the model a satisfactory entry. One should note that this entry is not even shown in the materials that accompany the Complaint. Also, there is no articulated transition between the ground and the building so that the building is shown as simply "crashing into the ground". All this leads one to conclude that this work cannot be considered a schematic design for a realizable building. It is my opinion that it is virtually untenable for the Plaintiff to claim specific rights over a body of material that is egregiously lacking basic information and is so inconsistent in terms of the drawings and the models, whether considered individually or together. All in all, the Olympic Tower cannot be said to have resolved the task of developing a conceptual sketch into a valid concept for a high-rise structure and certainly not a conceptual design that may be developed further into a reasonable schematic design for such a structure.

<u>An Evaluation of the Purported Originality of the Olympic Tower</u>

24. Despite all the reservations that I have expressed above, the Plaintiff nevertheless, claims rights over the purported originality of three elements as shown in the conceptual models and sketches pertaining to the Olympic Tower. These elements are:

a. the use of a structural diagonal column grid on the perimeter of the building (hereafter to be called a structural diagrid)

b. the twisting form (referred to by Plaintiff as a twisting tower)

c. the textured cladding for such form, as this is variously and inconsistently represented in the model photographs and line drawings submitted under Exhibit B of the Complaint.

I am of the opinion that the Plaintiff has no rights with respect to these three elements for the following reasons:

25. Structural Diagrid The use of structural diagrids dates back to twin radio towers built outside Moscow in 1927 by Vladimir Suchov. As far as I have been able to ascertain, the first use of a structural diagrid (in this instance on a conical structure) was a high-rise office building by I.M. Pei dating from 1961. As a high-rise engineering device the structural diagrid has been employed by SOM and other architects, since it was first developed as a practical, anti-seismic, perimeter system of support by Fazler Khan and Myron Goldsmith of SOM in various projects between the mid 50s and the mid 60s. Goldsmith was already designing towers and circular planned structures stiffened by structural diagrids at the Illinois Institute of Technology in the mid 50s. In fact, just such a circular structure, namely, the Oakland-Alameda Community Coliseum, was realized to the designs of SOM in 1966. Apart from this, one may argue that the first application of a structural diagrid was for the John Hancock Tower, realized in Chicago, designed by SOM over the years 1965 – 70. Images of the foregoing projects, as well as other projects incorporating structural diagrids, are annexed hereto as Exhibit E.

26. We will encounter the use of similar exterior structural diagrids in more than half a dozen SOM high-rise projects designed over a 30 year period between 1966 and 1999, including the Alcoa Building, San Francisco (1967); the Wang Building, New York (1984), Madison Square Garden, New York (1987); the Russia Tower, Moscow (1992); the Wangjing City Tower, Beijing (1994); the Abu Dhabi National Oil Company Headquarters, Abu Dhabi, United Arab Emirates (1997); and lastly, the Shenzen International Economic Trade Center, Shenzhen, China (1999). It is ironic, to say the least, that the Plaintiff should claim rights over a

mode of construction – the perimeter structural diagrid - that was effectively invented and developed by SOM. Images of these and other SOM projects are annexed hereto as Exhibit F.

27. "Twisting Tower" or Helical Tower Construction The Plaintiff's claim for copyright infringement with regard to his concept of a "twisting tower" may be challenged first by the fact that it cannot be said to be more than a concept for a form and not a design for a tower, but also, should one choose to assume it is a twisting tower as presented, one can demonstrate a large number of precedents that already exist for this building type, including Harry Weese and Charles Thornton's design for a helical tower, made in association with the engineering firm of Lev Zetlin (1980) and SOM's Xiamen Posts and Telecommunication Building projected for Xiamen, China (1995). A bifurcated twisting tower would be designed a decade later by Karel Voller (1991), who has since become a world expert in such structures (see his book Twist & Build, 2001 by 010 Publishers, Rotterdam). The renowned Catalan engineer Santiago Calatrava would also project what he called his twisting, Turning Torso Tower designed for Malmö, Sweden at approximately the same time. Another example of a strictly helical twisting tower is a Control Tower for Laguardia Airport, New York, by Bart Voorsanger (1999). Images of the above projects as well as other such buildings are annexed hereto as Exhibit G.

28. Textured Cladding Precedents also exist for textured glazing, as we may judge from the fact that standard greenhouse glazing is invariably textured so as to maximize solar penetration through the glass. This type of glazing was first made generally available through J.C. Loudon's Remarks on Hot Houses of 1817, and is the glazing principle that is the inspiration behind Joseph Paxton's Crystal Palace, realized in London in 1851. An image of the Crystal Palace is annexed hereto as Exhibit H.

29. As far as its use in high-rise construction is concerned, Frank Lloyd Wright pioneered a form of textured glazing as a continuous curtain wall (a curtain wall is a skin or cladding, usually composed of glass supported by a metal framing system) in a succession of projects during the last half of his life. The following sequence of high-rise proposals to come from his hand come to mind: The National Life Insurance Building, Chicago, 1924; St Marks-in-the Bowery, New York, 1929; Crystal Heights Apartments, Washington, 1939; H.C. Price Company Tower, Bartlesville, Oklahoma, 1952; and above all, in his 50 story Rogers Lacy Hotel, Dallas, Texas (1956) about which he wrote: "The outer surface was composed of diamond shaped glass panels...the scale like surface is designed to be self-cleaning, each glass panel projecting a few inches from the one below". Images of these projects by Frank Lloyd Wright are annexed hereto as Exhibit I.

30. Louis Kahn and Ann Tyng followed Wright's lead in this regard with the tessellated, crystalline curtain wall that was depicted as covering their City Tower high-rise office building, in Philadelphia (1952). SOM first used textured glazing in their American Air Force Academy Chapel realized in Colorado Springs in 1961. Possibly inspired by Wright's 1954 Beth Shalom Synagogue, Philadelphia, this 150 foot high structure made extensive use of crenellated glazing in combination with an elongated diamond-like structural grid comprised of tetrahedrons. Images of these projects are annexed hereto as Exhibit J.

31. The decisive issue is not so much whether both Plaintiff and SOM have followed the well-established practice of using textured glass in a façade, but rather, the fundamental difference in the way in which it is employed in relation to the structural diagrid in both instances. One salient difference, as the Plaintiff makes clear in the definitive representation of his textured curtain wall (Complaint, Exhibit B, page 1) is that, as we have already noted, the

Olympic Tower structure is effectively in front of the glazing, whereas in the Freedom Tower, the structure is set to the rear of the glazing, that is, the structural members are located inside the building. This however is not the only difference in their separate handling of the curtain wall, as I will endeavor to make clear in the following comparison dealing with their overall appearance.

The WTC Freedom Tower designed by David Childs of SOM December 19, 2003 as Compared to Plaintiff's Materials under the titles Shine '99 and the Olympic Tower

32. SOM's Freedom Tower project as of December 2003 is a fully comprehensive, schematic design for a functional, high-rise building. Photographs of the three dimensional models of the Freedom Tower, that were shown to the public on December 19, 2003, are annexed hereto as Exhibit K. The only aspect Freedom Tower has in common with Shine '99 is that they both have two opposing straight sides and two opposing warped sides. Apart from this common warping of a high-rise structure, there is no resemblance whatsoever between the Freedom Tower and Shine '99. For reasons I have already cited, Shine '99 is a totally undeveloped concept, and cannot be regarded as a coherent design for a building.

33. With respect to the Olympic Tower and the Freedom Tower, the Olympic Tower is a helical construction, while the Freedom Tower is not, that is to say, the Olympic Tower rotates about an axis as it rises, while the floor plates in the Freedom Tower do not rotate at all. Although both have warped sides, there are four in the case of the Olympic Tower and two in the case of the Freedom Tower. The Olympic Tower involves an eccentric rotation through 90 degrees, wherein, a square plan at the base culminates in a rectangle that is half the area of the base at the top, due to the fact that one side of the initial square is progressively reduced to half its original width. This gyration and transformation of the floor plate, passing from square to

rectangle results in irregular internal space configurations on each floor. It also imparts a hunched over or bent profile as the building rises to its full height. (See Complaint, Exhibit B).

34. Conversely, the two warped sides of the Freedom Tower progress from a parallelogram in the plan at the lowest levels -- a shape that incidentally arises from the non-orthogonal nature of the site -- to a parallelogram at the highest levels which tilts 30 degrees in the opposite direction. The mean between these two extremes is to be found at the 37th floor, where the floor plan is, momentarily, a perfect square. Due to the straight sides of the Freedom Tower, the depth of the parallelogram remains constant throughout. Since the tower tapers on its warped faces, the usable area of the parallelogram at the highest floor is slightly less than that at the base, but the configuration of spaces on each floor follows a regular progression. As opposed to the hunched profile of Olympic Tower, the profile of the Freedom Tower is vertical. This is one of the most fundamental differences between the two and one that would be immediately noticeable to the man-on-the-street, since the former leans over and the latter is straight. (Compare Exhibit K hereto, to Exhibit B of the Complaint.)

35. Another primary design feature that categorically distinguishes the Freedom Tower from the Olympic Tower is that, unlike the latter, the Freedom Tower has been carefully articulated according to the high-rise tradition into bottom, middle and top. On the street frontage of the Freedom Tower the glazing is partially recessed behind the diagrid as the structure comes down to the ground in order to provide for entrances on street frontages, and to emphasize the "monumental" character of the lower floor of the building. Apart from the principal foyer, this level also comprises two mechanical floors, a concourse mezzanine plus an entry to the Path Subway system on the lower ground floor (see Exhibit K). In the Freedom Tower the bearing of the structural diagrid at the street level is arranged to permit three double

revolving doors along the West Street frontage, and four pairs of similar entrances on the Vesey and Fulton Street elevations. This distinguishes the bottom of the skyscraper. No such treatment is indicated in the Olympic Tower, other than a crude aperture in the base of one of the models.

36. As compared to the featureless top of the Olympic Tower, the Freedom Tower terminates in an open skeletal structure, which rises to the equivalent of 30-35 stories in height. This structure houses some 25 wind turbines plus radio and television antennae and an observation platform. Two concrete tubes, housing elevators, run up through this structure to support the hat truss at the top of the building. At the same time, these elevators provide ready access to the public observation platform. The following technical, functional and representational elements are subtly combined in the pinnacle of the Freedom Tower. Of particular interest is the fact that the upper part of the perimeter diagrid structure is supported from the hat truss, via tension cables. This hat truss system is cantilevered off the twin concrete elevator tubes at the heart of the pinnacle. The suspension system at the top of the tower makes an allusion at a mega-scale to the suspension cables of the Brooklyn Bridge, just as the 1,776 feet mast, asymmetrically situated at the crest of the pinnacle refers to the year of the signing of the Declaration of Independence and to the asymmetrically upraised arm of the Statue of Liberty.

37. The structural diagrid on the perimeter of the Freedom Tower constitutes a structural system with a high level of peripheral redundancy, so that in the event of a blast or an impact, the diagonal columnar network would redistribute the internal forces away from the damaged portions of the perimeter structure. From this one can see how the selection of an interlacing diagonal structure arose mainly out of security considerations rather than from any stylistic preconception. Moreover, the form of the Freedom Tower is derived from the shape of

the site, and its orientation is derived from the need to set the wind turbines against the prevailing winds particular to the site.

38. Another difference between the structural diagrids in the Freedom Tower and the Olympic Tower is that the number of structural nodes across the width of each side differs such that even assuming the buildings are the same height and width, the shape of the resulting diagrid would be completely different.

39. There is also a fundamental difference between the Freedom Tower and the Olympic Tower in terms of the way in which the curtain wall is handled in each instance. In the first case, as I have previously remarked, the structure is behind the glass in the Freedom Tower, as opposed to the Olympic Tower where it projects in front of the glass. In fact, in the Olympic Tower the exposed structural depth of the diagrid varies with the rise and fall of the glass as it descends down the face of the building, imparting a vertically woven surface to the full height of the building. How this would be achieved on a warped surface is unknown as Plaintiff has only provided a picture of the curtain wall, applied to a flat surface, as a three dimensional model of the weaving plates with insufficient detail to determine how they would be applied (see Complaint, Exhibit B, pages 2, 3, 7, 9; Exhibit G, page 1; Exhibit C, page 1; and Exhibit B, Page 1).

40. In the Complaint, Plaintiff refers to the curtain wall of the Olympic Tower as having a "crenelated" appearance. The only rendering of his curtain wall is the image on page 1, Exhibit B of the Complaint, which shows the structural diagrid with recessed glazing. By "crenelated" I can only assume that Plaintiff is referring to the manner in which the panels shown are angled in triangular segments and appear to weave in and out. Rather than "crenelated" perhaps a better word would be "textured" or simply non-planar. I might note that triangulation

is one of the only methods of resolving a curved or warped surface into individual flat pieces such as glass and is a common element in any building with curved or warped surfaces. The Freedom Tower model uses a curtain wall with faceted "crystals" which intersect with each other in four directions as opposed to much more simple undulating weave in two planes used in the Olympic Tower. This difference is most dramatically evident at the corners of the Freedom Tower (see Exhibit K). There is also the curious fact that in the photo of the larger model (Complaint, Exhibit B, Page 1), the exposed structural columns of the Olympic Tower do not form a bonafide structural diagrid since at the point where they should intersect, they are actually discontinuous.

41. Lastly, there is the question of the size discrepancy between the Freedom Tower and the Olympic Tower; the former is at least half the volume and floor area of the latter, as far as one is able to judge from the submitted material.

Summary

42. On the basis of the materials submitted by the Plaintiff in support of his Complaint, I am of the opinion that the Plaintiff has no grounds whatsoever for asserting ownership over elements such as the external structural diagrid, the twisted tower form and the curtain wall, irrespective of whether we take each of these separately or in combination. Further, that there are significant number of precedents for all of these elements, both in combination and singly. (Some recent examples from the World Trade Center design proposals and other projects demonstrating the use of these elements in combination are annexed hereto as Exhibit L.) And finally, that there is no significant resemblance between the Freedom Tower designed by SOM, and any of the materials submitted by the Plaintiff.

RICHARD MEIER

Sworn to before me this
25th day of March, 2005

Notary Public

LACY H. KOONCE III
NOTARY PUBLIC, State of New York
No. 02KO6029665
Qualified in New York County
Commission Expires August 23, ~~2001~~ 2005